

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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5    Appl. No.: 10/710,506                      Filing Date: 07/16/2004  
     Patent No.: 7,215,391                    Issue Date: 05/08/2007  
     Docket No.: NAUP0588USA                Confirmation No.: 4505

10    Title:        LIQUID CRYSTAL ON SILICON DISPLAY WITH MICRO COLOR  
                 FILTERS POSITIONED ON THE TOP SURFACE OF THE  
                 TRANSPARENT SUBSTRATE

     To:        Commissioner for Patents  
                 P.O. BOX 1450  
15                Alexandria, VA 22313-1450

Subject: **Submission of Prior Art under 37 CFR §1.501**

20    Dear Sir,

     This is a submission of prior art under 37 CFR §1.501. The  
     applicants wish to make of record each of the documents listed  
     on the accompanying form PTO/SB/42.

25        The cited reference contained in this submission was first  
     cited in the Office action mailed on March 30, 2007 against  
     the counterpart China patent application No. 2004100709599,  
     which are no more than three months prior to the filing of  
     the citation of prior arts. The cited references contain China  
30        patents CN 1360220A, CN 2514447Y, and CN 1470909A. Copies of  
     the three patents and an English-language equivalent US patent  
     No. 6,909,479 of CN 1360220A are submitted and also listed

in the form PTO/SB/42.

According to the requirement set forth in 37 CFR 1.98(a)(3) and MPEP 609.04(a) III, English language abstract of cited  
5 references CN 2514447Y and CN 1470909A is included herewith to fulfill the concise explanation requirement.

**CN 2514447Y (filed June 26, 2001)**

The miniature reflecting colour display device includes  
10 a silicon substrate with CMOS structures, an array of metal reflective layers, a lower alignment film, a liquid crystal layer, an upper alignment film, a transparent conductive layer, and a glass substrate stacked from bottom to top to be packaged as a display device. The display device also includes micro  
15 color filters with three colors arranging as an array, positioned between the upper alignment film and the transparent conductive layer. The optical system of a color projector can be simplified according to the display device, which also provides advantages of low volume, low cost, and  
20 high reliability to the color projector.

**CN 1470909A (filed July 26, 2002)**

The main point of the invention is that a liquid crystal layer is setup between the upper and lower insulated base  
25 plates; a half-reflection film layer is coated on the lower insulated base plate. A color light filter layer constituted by photoresistive with high color saturation and a resin protective layer are formed on the half-reflection film in sequence. A total reflection film is coated on the protective  
30 layer. Finally, patternizing total reflection film is carried out.

Respectfully submitted,

Winston Hsu

Date: 2007/6/27

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